# One Educational Technology Colleague's Journey from Dotcom Leadership to University E-Learning Systems Leadership: Merging Design Principles, Systemic Change and Leadership Thinking

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## Abstract:

This paper describes my journey from instructional technology professional and doctoral student to instructional technology leader and tenure-track faculty member. I reflect on 15 years of application, in government, industry, and higher education, of what I learned in the classroom from some of the giants of the field (Wager, Morgan, Kaufman, Dick, Keller, Harless, Reiser, Driscoll). With the continuing proliferation of technology throughout all levels of higher education, systems thinking and the instructional systems design (ISD) process is highly relevant and germane. Its application, however, must be done with care as many people do not understand it and it is applied within a complex, imperfect social and organizational cultural context that requires compromise, consensus building, patience, and a willingness to proceed slowly. The growing role of technology in organizations, and especially e-Learning in education, has increased the need for systems thinking and systemic change in order to manage rapid change.

This is my story.

**Keywords:** instructional technology | tenure-track faculty member | system thinking | instructional system design | doctoral student

## Article:

Technology is a game changer. A colleague showed me a web-based global map of Internet activity. Lights reflected connectivity and activity at certain times of the day, darkness reflected no activity. In Asia, China's eastern cities were lit up but darkness enshrouded two thirds of its vast lands. The rest of Asia reflected similar urban centers (lots of activity) and rural "blacked out" regions. In Europe, a consistent set of "blips" lit up its continent. Africa was almost completely dark except for its coastal regions and in South America, similar to China, the eastern and western parts of the continent reflected blips of Internet activity with its center and southern

region (Amazon) completely dark. In North America, however, there was no darkness – all 50 states of the United States across North America along with the urban areas of Canada were lit up, bouncing like an incandescent swarm of fire flies, and the intensity and density of the blinking lights were by far the strongest compared to the rest of the globe. Collectively, the flickering of various light intensities on this animated map resembled the blinking lights of a car signal, a signal that some kind of change was about to happen or was happening everywhere. How do we manage this? We are we headed? What happens if everyone does not agree in the same direction to take?

**From Dotcom to Classroom to Boardroom**

As a former quality assurance and training manager for an Internet company 15 years ago I had the privilege of seeing first-hand the rapid cycle of product conceptualization, design, development, testing, and refinement. This experience ultimately brought me to academia for my first of two stints as the coordinator of online learning for a large academic unit at a major research university. My experience in the private sector, however, did not prepare me well for the barriers I faced when trying to oversee the use of instructional technology in academia. For instance quality control and a systems approach were not readily familiar concepts. This academic unit context I was just asked to lead was also using a home-grown legacy learning management system that relied on application developers.

**Faculty-designer-developer interactions in e-Learning: It's complicated.**

The interactions between a faculty member (in a role as content expert), instructional designer, and application developer involved in developing an eLearning course are complex. This relationship requires constant communication, especially since the comfort levels with technology of faculty members widely vary from minimal to expert. This complex relationship and the associated interactions are diverse, fluid, and content and context specific. In my particular situation, the application web developers were all current or former students of an information technology graduate program—they were young, extremely bright, yet relatively inexperienced professionals. This meant that diverse relationships between these application developers with some of the faculty, some nationally known leaders in their field who were not yet comfortable with technology, could at times be contentious and frustrating. One result was that meeting deadlines and the overall quality of our team's work were not always on par with system expectations driven by unyielding semester deadlines. To make things more complicated, I was also young in my own career then, and ill equipped to handle the complexity of running a technology unit within an academic department that required such complex design and development exchanges between faculty, students, and technology – along with the myriad of emotions that came with it. I just wanted to do my job.

In essence, the central problem seemed less involved with the technology and more related to the relationships and differing expectations between the faculty, me, and the young developers trying to serve faculty in developing eLearning courses. These faculty were dealing with typically high pressure, high expectations in service, teaching and research, and they were often anxious about migrating their face-to-face courses to a fluid, relatively unknown online learning environment. As a systems thinker, I worked to establish a quality control process and a supporting

technology-based system that emphasized accountability and work flow. It presented faculty with a clear, concise pathway toward moving their courses online. My role was to serve as the instructional designer and also the manager of the application developers; in retrospect, however, I did not pay enough attention to the social context and relationship aspect of leading a high performing team. I suspect this is a familiar path for many new leaders in educational technology-integrated university domains; A focus on just getting the job done is not enough.

**A for Analysis plus E for Evaluation leads to Consensus.**

Some years later, after having the privilege of working with Joe Harless (1988) on his Central Educational Center educational innovation project, it became clear to me that the ADDIE process is more than a model for instructional design, systems thinking, systemic change, and technology integration. It can be an important model for human performance and relationship and consensus building among the many different "human beings" collaboratively involved in the performance of a system. Dr. Harless felt that the consensus built during the needs assessment and analysis stages for example was the "magic" ingredient and the most important outcome to emerge from these two stages of design and development. The consensus generated by bringing everyone to the table to create a collective vision prevented barriers caused by competing visions from being created in the first place. This means that the product of the design phase must be organic and not prescribed as a box on a process model. The "E" in evaluation represents a continuous feedback loop associated with all phases of the ADDIE (analyze, design, develop, implement, and evaluate) model - in application, however, the "E" represents a measure of performance both for the process and also for the people working on it. "E" helps establish both current and future performance in a system as well. Most importantly, it can represent a point of consensus and dialogue for all involved and helps answer the seminal questions of "how are we doing?" and "what should we be doing?" at regular intervals throughout the lifecycle of a project, product, or service.

As a young manager involved deeply in design and development projects, I found that when performance issues arose involving such human performance issues as attitude, quality of output, professional attire, work hours and communication with faculty, I made the mistake of focusing on the deficit performances of the employee in the organization rather than using "E" as an opportunity to compare and contrast actual with expected performance. By emphasizing the performance gaps (deficits) rather than the desired outcomes the leader/team dialogue tended towards implicitly negative, contentious, and judgmental discourse where it could have been gentle, comparative, and instructive. Poor performance was mistakenly viewed by this new leader as a professional deficit reflected in my management abilities as opposed to an opportunity to improve the capabilities and potential of my team. This is the classic "cup half-full, cup half-empty" paradox faced by so many new leaders with nothing but good intentions for the system they lead. Ironically, I needed to focus more on the cup half-empty that allows us to get to the cup half-full; these opportunities for improvement represented the tangible gaps that needed to be affirmatively addressed as part of the journey and growth toward true high performance. Success is truly paved from the hard lessons of imperfection. It is cliché because it is so true.

Using ADDIE properly, however, along with the human consensus concept role modeled for me so well by Harless, made me realize that I could have used each of these instances where performance was not where it needed to be as opportunities for improvement and opportunities to dialogue with both the staff and my boss about expectations. While "controlling" staff was initially a naïve attempt at quality control from a young manger, quickly proven to be out of the question, managing the process toward ensuring that poor performance was identified, documented, and discussed was one of my paramount duties as the organization framed my leadership role.

Through building human connections, which naturally creates more opportunities for gap analysis and dialogue about what ideal performance actually should look like, does ADDIE truly reflect the foundation for human performance technology. In the classroom and early in my career, I was enamored with the precision, efficiency, and effectiveness of the systems process. Through experience, however, I realize now that human relationships, communication, and socially negotiated individual and organizational goals are really the major outcomes of the Analyze stage of the ADDIE model.

**A Decade Later: Implementing Instructional Technology as Professor and Director of Online Learning**

As a tenure-track faculty member at a midsized university in the southeastern United States technology is an important part of the tool set we use to conduct various activities centered on the core activities of research, teaching, and service. In the seven years I have been with my current institution, many changes have occurred. Seven years ago distance learning at some universities still meant delivering instruction via closed circuit television where both teacher and students had to gather in television rooms on campus and at satellite campuses throughout our university system. Part of my recruitment package, in fact, was a state-of-the-art Polycom video unit with large dual televisions.

Within a few years, however, Skype video conferencing and the emergence of video conferencing in Blackboard began making any type of non-internet based video conferencing obsolete. Whether teaching face-to-face or online, the use of a learning management system to manage the course, deliver content, provide assessment, or facilitate discussion both inside and outside the classroom became the norm. Around the same time, the Google suite of online applications, in particular email, calendar, and file storage, emerged from free, personal use to adoption by many universities across the country. The impact of this meant that many faculty and students were now unified with a common platform that made the use of instant messaging, video conferencing, calendar, and document storage and file sharing easy and accessible to everyone.

As faculty and as leaders, we are continually growing. I will always remember the momentous day, March 1, 2013 to be exact, as a pivotal technology milestone and shift in my professional career. It was on that day that my office telephone was permanently removed from my office and replaced by a Google voice phone number accessible "only" through my myriad of Internetconnected devices. Because of its ease-of-use and cross platform interoperability with our smart phones, iPADs, laptops, and desktop computers, Google voice made our standard

office phones obsolete replaced by the ability to communicate instantly via cell phone, internet telephony, video conferencing, email and/or instant messaging. In the rare occasion that someone actually calls my Google Voice (now called Google Hangout) phone number and leaves me a message on my voicemail, I instantly receive a transcribed email transcript of the message. Today, all my communication now runs through some kind of computing device, which allows me to be on the move and always (not always a positive) accessible if I want to be. Essentially, we had discovered that our LAN line phones were too expensive for their low usage levels. Technology continues to empower us to communicate more, better, and faster. Indeed, our entire School is using Google Voice and Google Hangout now – while most faculty colleagues no longer have phones. Who would ever have imagined that a decade ago? This blend of technology innovations, our sensibilities about what we do as professors, and our pedagogical gaze toward e-Learning, for example mark a flux in the evolution and development of faculty in the university.

**Systems Thinking and e-Learning in Higher Education**

Higher Education Our Dean asked three seminal questions about e-Learning: "What does quality online learning look like? "How much does it cost? and "How do you pay for it?" As late adopters of e-Learning, our department (and, I am sure many, many others around the country) had a lot of data and research as grounds for answering these questions. We chose to use systems thinking and the ADDIE model as the framework by which these questions would be answered. What follows is this (Online Learning Division) faculty leader's emerging perspective on answering these seminal questions using the ADDIE model.

A is for **Analyze**. The analyze phase of design involves clearly establishing the what is and what should be of any given context – the difference between the two represents the gap or the need that should be addressed. Given the Dean's three questions, both the literature and the current context of our School were examined. We asked again and again: "What are our goals?"; "How prepared are faculty and students?"; "What are our attitudes towards online learning?" Then we wondered how the literature and research we have could answer each of the Dean's three questions.

The *ideal vision* (Appendix I) was created to center upon both current and prospective online student in our Faculty. It is heavily informed by our collective understanding of educational technology research and the affordances of technology today – reflecting a 21st century vision, arguably, with a new kind of leadership subtext:

Students will also have many virtual opportunities for networking and building relationships with their online cohorts:

- Weekly "meet-and-greet" social hours in Second Life
- Facebook group
- Online student chapter and all meetings will be streamed via u-stream if needed" (Chow, 2011)

Analysis led to this kind of informed visionsetting so that the faculty could lead itself ahead. Analysis was done via a combination of original research (Chow, Oguz, Chu, Martin, & Smith-

Decoster, 2012), a comprehensive review of the literature, and an internal needs assessment. A four-part online conceptual model was then developed to integrate what we do based on the ideal vision (above). Four core elements of a quality e-Learning program were identified: – marketing, student services, technical support, and assessment. Beyond the scope of this paper, this emerging leader merely gestures to Figure 1 as the culmination of the analysis approach to e-Learning in our faculty.

The preliminary plan was approved by the Dean and Associate Dean and the project moved to the next phase.

**The first D is for Design.** The design phase in ADDIE involves utilizing the gap between the goals identified in a system and what is currently available or what has been achieved in the analyze phase as a checklist of action items that must be addressed to achieve system goals. For this project, two primary areas of focus for Year 1 were: (1) prospective student services and real-time technical support especially for faculty who were already asked or considering moving their courses online, and (2) faculty incentives. To establish real-time student support, especially for prospective students inquiring into studying with us, an online help desk was created comprised of the same graduate students who also managed the School's computer labs. The second primary goal was incentivizing faculty for the large amount of time it takes to redesign their traditional face-to-face courses for online delivery. Our intent was to also clearly establish that the School was headed towards online delivery and that faculty willing to begin moving in this direction would be incentivized.

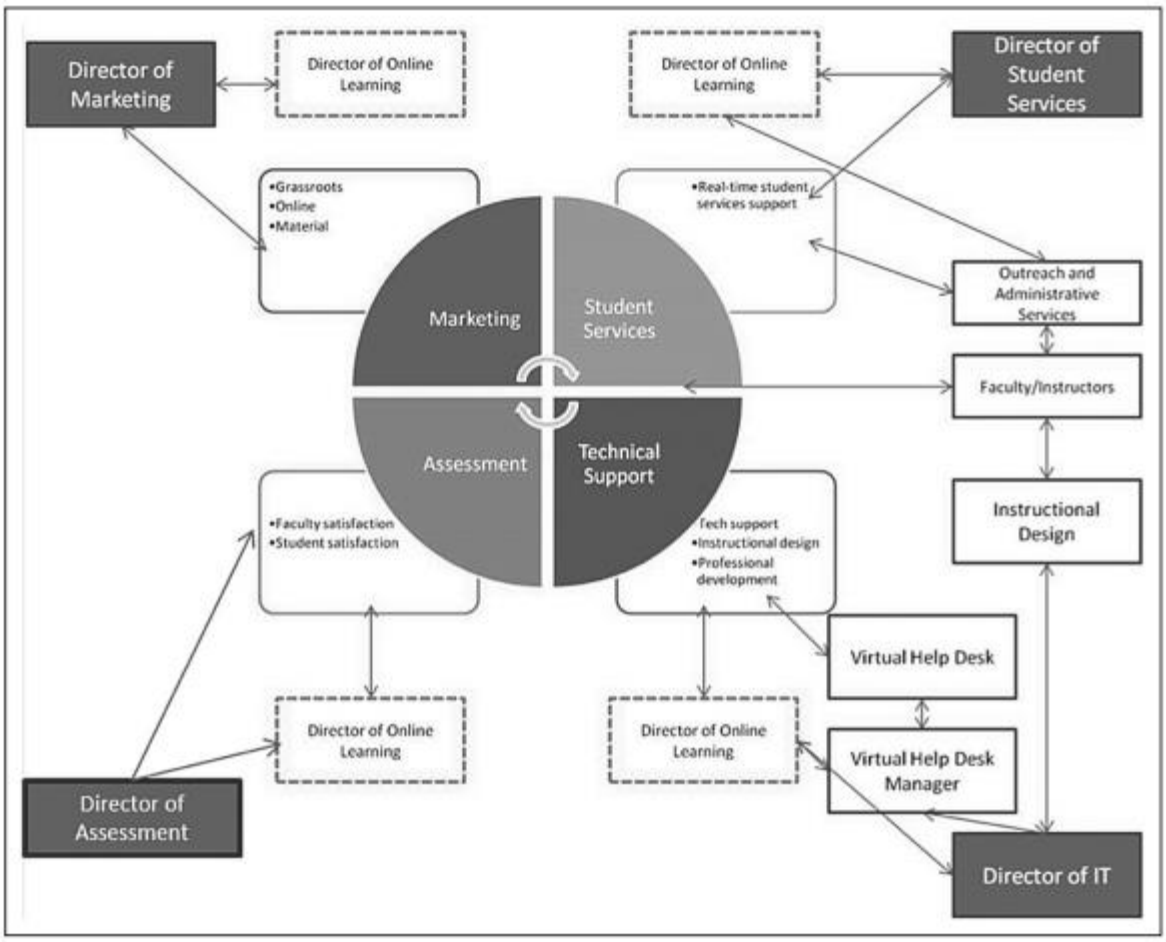


*Figure 1. SOE e-Learning Conceptual Framework*

**The second D is for Develop.** Based on the experiences and research of other universities it was decided that an internal online help desk was needed to supplement the larger University help desk which had been focused primarily on helping people to use the learning management system (LMS). The additional rationale for having our own help desk was that the School's help desk would also offer one additional service outside of traditional technology support – real-time student support for prospective students that wanted to interact with someone via chat, telephone, or video conferencing right from the website. Meetings were held with the School's Director of Instructional Technology and it was agreed that the current lab monitors would add management of the online help desk to their existing responsibilities. The incentives for faculty would come from special distance education funds allocated by the state university system designed specifically to increase distance learning opportunities across the state.

**I means Implement.** The two initiatives were implemented or rolled out "successfully" in a six month period of time. All faculty from one department were incentivized to move their courses online to establish an online master's degree program; two add-on licensure certificate programs were also funded. All other existing online courses that required hardware and software were also funded. A virtual help desk environment was set up so lab monitors could field inquiries from the Web or via telephone call while still serving as lab monitors. Hours were established after traditional work hours so that support would be available in the evenings and weekends

which are the common times for online students to be active. e-Learning was off to a good start at our School.

**"E" is for Efficacy and Evaluation.** A project tracking system using Google docs was designed and developed so that all preliminary project goals could be tracked and were ultimately attained. Everything seemed to be proceeding well but the integrity of our e-Learning system, or any system or project for that matter, cannot be measured only through successful accomplishment of the identified goals. There was a nuance that was missed and despite the fact that a plan had been established and goals were being attained there was a problem. The system apparently was not working for, or was not high in efficacy, for everyone. The pursuit of efficiency and effectiveness in designing and developing our e-Learning system had apparently moved too fast and a serious problem that was unforeseen had emerged; the issue was not productivity but rather one that involved change management, communication, and culture.

**The Big Takeaway: Honoring the "H" in Human Performance Technology**

As faculty, designer, leader, online leader, I always thought that the ADDIE model was the ideal process for planning and achieving goals in a highly efficient and effective fashion. This systemic approach resonates with my personal and professional focus on getting things done with intention, feedback and accuracy and, in fact, it is breathtakingly easy to understand and affect this model for design, development, and implementation. But I realized after receiving feedback from my Dean that I had missed an essential nuance (which reflected a gap in my own professional knowledge). By reflecting on the work of Harless I had experienced before I realized that first and foremost, during the Analyze phase in ADDIE, a technology leader must bring everyone together to discuss, reflect, and decide on the best course of action to take as a fundamental part of the analysis. I had forgotten this lesson (again) in the implementation of our online process and initiatives because of my desire to see the vision realized just as "we" had planned it. Unfortunately, the "we" was too narrowly defined and did not involve everyone involved.

It came as a shock to me that the Deans were not particularly happy with my work or the progress we had made after Year 1. The systems process had worked exactly as planned but the central problem was that the process or model itself (framing my approach) was not properly communicated, learned and discussed with others in the organization before implementation began. After implementation, we found that some team members did not feel they had enough say in the plan or enough dialogue to discuss it. Buy-in from everyone was not present. People were upset at the changes and my role in bringing about these changes. They did not come to me directly either – rather this frustration was voiced to the Deans themselves. ADDIE does not cover these things, I mused. The system is far more complex and engaged, though by this evidence, I could see possibilities for leading with this framework in the future.

The central mistake we made in the process implementation was based upon an incorrect assumption that approval from the Deans (structural approval) was enough. Their "green light" was just a go-ahead indicator to begin the slow, recursive, measured process of discussing, vetting, and refining the plan based on others' feedback. Change is slow and even more so in academia and higher education (Christiansen, Johnson, & Horn, 2008). In order to achieve more

consensus and also continue growing, the Deans established an ad-hoc online learning steering committee, which immediately helped alleviate much of the communication problems by bringing all of us together to identify collective goals, negotiate organizational meaning about what we were trying to accomplish, and the best pathways to get there. Most importantly, I was advised to slow down. I realized I needed to focus more on the "H" in human performance technology.

This leader learned that with careful, systemic change planning must come clear communication and consensus building at the personal, individual level as well as at a committee level in higher education institutions. Change, no matter how well thought out, will not be accepted without allowing everyone in the organization a say and voice in the planning before implementation. In fact, learning more about human systems, change and organizational decision making in educational technology graduate programming may help other emerging leaders like me as we rediscover "H" in terms of our design and leadership praxis.

**E-Learning at the University Level**

As our academic unit has been undergoing tremendous change in preparation for increased online delivery, the University is engaging in similar preparations. I have recently been asked to lead a special University-wide needs assessment and to once again use systems thinking and systemic change theory as guidelines for my planning and vision-setting for the University. This means taking an ends-means-process approach for e-Learning overall (Figure 2) and using ADDIE again to contemplate institutional needs, resources allocation, planning and consensus building in the approach.

**Ends-Means-Processes.** The two central questions for the University are: (1), "What is the campus-wide vision for distance education in the short and long term?" and (2), "Are our distance education support services appropriate for the needs of its academic units today and into the future?" The appropriate policies and procedures would then need to be appropriately identified and established once these overarching ends and means were defined. Figure 2 reflects my early e-Learning model for systemic change. Not surprisingly, I use design-based logic and systemic change thinking (Reigeluth & Duffy, 2008):

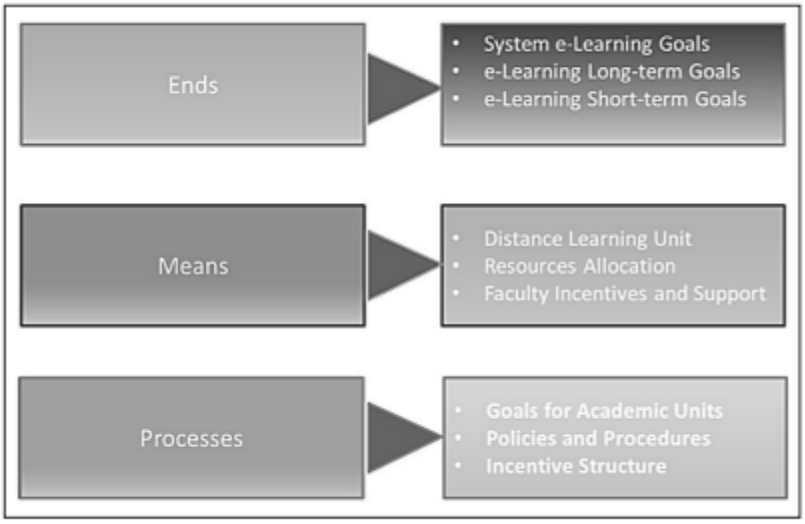


*Figure 2. e-Learning Systemic Change Model*

**ADDIE, Needs Assessment, and Resource Allocation.** The winds of change sometimes seem to blow hardest here, as they do for many universities in the 21st century. At my university the head of distance learning has stepped down and the Chancellor has convened a special ad-hoc committee to conduct an environmental scan of e-Learning and our university's place in it. Enrollments are down across campus while more and more students are taking online courses nationwide. I have been asked to conduct this needs assessment that is expected to inform how our distance learning support services will reorganize itself to more closely align its resources and services with the University and academic units' goals.

While e-Learning itself is an instructional technology, the technology acceptance model (TAM) suggests that technology adoption rests on two primary factors; relevance and ease-of-use (Davis, 1989). In other words, prior to seeking to train our faculty in current and emerging instructional technologies and providing them with the latest hardware and software, a relevant need must be established followed then by professional development and an implementation environment that makes adoption and instructional use easy-to-use. The specific technologies themselves are largely irrelevant. As budget cuts appear to be coming again there will be fewer resources to allocate so what is available must be allocated very carefully. The ADDIE process and needs assessment will continue to serve those who lead this venture—as a viable model in which to identify clear goals through the perspectives and unique needs of administrators, faculty, and students at multiple levels of the university—system, university, school, department, class, and individual (faculty and students)—so that our shrinking resources can be allocated as effectively and efficiently as possible.

**ADDIE, Strategic Planning, and Consensus Building.**

The results of the pending needs assessment will be reported and they are intended to inform a three year strategic plan serving as both a roadmap for the future but also an invaluable communication device for dialogue, discussion, reflection, and refinement. As I noted before, one of the critical aspects of human performance technology (HPT) is emphasizing the human element both in terms of KSAs necessary to do the job but also, even more essential, the

consensus in the goals themselves that are necessary for buy-in and the vetting process that serve as the foundation for the motivation that needs to be present for change to occur. It is possible that this leader may engage many experts in "H" to augment the coming process and its evolution, based on earlier learning (above).

Not everyone will agree with the strategic directions that are being identified, nor will there ever likely be a time where there is 100% agreement. The process, however, of discussing organizational goals at a high level and the activity/tactical level is represented in the strategic planning process. Without a strategic plan it would be difficult to have a consistent dialogue around clearly articulated goals identified as part of the ADDIE process. A strategic plan with clear goals, objectives, and tactics that are time-sensitive is a high quality output of a well implemented ADDIE process. Leading means following plans, and there are many levels of plans to align with as a university educational technology–engaged service leader.

**ADDIE, Evaluation, and Data Analytics and Informatics.** The "E" in evaluation for the ADDIE process is continuous and always present at each stage. The increased prevalence of technology pushes the ADDIE process front and center as a reasonably viable model in which to apply systems thinking and systemic change throughout organizations. The e-Learning strategic plan for the University will have clearly identified goals along with the metrics in which to measure them, the methods of data collection necessary to gather data about them, and the specific data points that we will want to collect. The data collected represents the opportunity to use it for analysis and refinement in a scientific, consistent fashion with an emphasis on discerning patterns of behavior and performance (analytics). The other aspect of the "E" which technology has made available to us is real-time dashboards, for example that provide everyone with information that can inform organizational management performance decisions in more real-time, cause and-effect fashion (informatics and analytics).

## Conclusion

On my journey from Dotcom to university system leadership, systems thinking and systemic change seems important and relevant to our technology-enriched, ever interconnected and networked world. Student educational needs and access to higher education are changing with more diverse options and more diverse faculty responses to those options. In my case, our statewide university system has thrived for 224 years and is currently set up as a network of regional institutions to serve the state's populations centered on regional population hubs. The emergence of e-Learning is shifting the paradigm of our higher education system, and it's shifting the way we understand our system. This is systemic change personified (Reigeluth & Garfinkle, 1994).

Technology is a means to a greater end. For our students it means greater access, connectivity, and power to communicate with instructors, peers, and practitioners no matter where they are in the world. For faculty it means a tool that will continue to evolve, change, and present opportunities as well as challenges that must be faced in order to remain agile in using all that is available to us to educate our students. Leadership in design, development and system administration must also evolve, for this journey is not altogether a predictable one with student, faculty, social and institutional change increasing.

My journey has allowed me to see how ADDIE applied in the untidy world of day-to-day implementation is a powerful foundation in which to lead people with vision, clear goals, and thoughtful and strategic planning around the resources and evaluation metrics needed to get there. The reminder is that people, however, must have time to process, discuss, and understand how they contribute to each phase of ADDIE so that both the plan established and the end result are direct reflections of them, their ideas, and their work. As leaders in technology we must create the conditions in which this can happen and understand that ultimate impact on the end outcomes are often outside of our direct control. Understanding the humanity of our employees and people we work with and knowing how to build consensus, a collective vision of what is to be achieved, is the true "magic" Harless perfected and represents the true "H" in human performance technology. Not everyone has to agree but they must have a voice. Without this, the best plans most likely will fail.

As emerging technologies continue to present opportunities the organizational goals, structures, and resources must shift with them as they impact academia's bottom line: students, enrollment, and degree completion. Systems thinking is tailor made to help meet the rapidly shifting demands of higher education; systemic change provides the necessary holistic perspective to assess the needs of an organization at mega, macro, and micro layers of an organization. We must also continue to improve our systems thinking for technology-involved leadership in complex, changing education systems (Kowch, 2013).

The organizational resources, especially technology, technology support, and the requisite professional development that must go with it must be closely aligned in order for organizational goals to be achieved in the 21st Century. The global map of Internet activity described in the introduction serves as an appropriate metaphor - a clear signal that the world is indeed a flatter, more global, interconnected place to be. It is a new world of endless possibilities and opportunities as long as individuals and organizations are systematic and strategic about their goals and how they plan on getting there and collect the appropriate information and data so that they can continuously improve. Following this systems process, success is inevitable.

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## APPENDIX I

### The Ideal Vision:

*"Our program is the online program where you still get to know the faculty and fellow classmates. Maintaining personal websites through Google sites and the required orientations and various other social events made available in regional locations consistently build a strong social fabric rarely seen by other distance learning programs. All of this is managed by an online program coordinator whose energy, organizational skills, and leadership ensure that online students are constantly communicated with, mentored, and made aware of networking and professional development opportunities.*

***As a prospective student.*** *The success of our program begins at the very start of a prospective student's experience. The website is very clear with detailed explanations of how the program works, what courses are offered using what instructional environments, financial aid opportunities, clear and easy to follow application instructions, and a clear set of FAQs, and student, staff, and faculty representatives that can be reached via email, phone, or online blog or twitter. The application process is an experience completely supported by the program. The online coordinator walks every student through the process and answers any questions immediately through a wide array of traditional and social media. Communication is constant and consistent throughout the entire process. The student experience begins with an acceptance letter and introduction to her/his student mentor and faculty advisor both of whom are copied on the e-mail that accompanies any approval letters sent by the graduate school. A required orientation date with specifics times and itinerary are included and also made available via the website. Along with the letter is a set of FAQs covering what to expect in terms of basic student needs such as getting an ID, email address, Web space, buying books, library privileges, student parking, registration, places to eat, student organizations; a new student "toolkit" is also provided on the website.*

***As a current student.*** *Once a student is accepted, they are provided with a link to confirm attendance both in the program and for the next orientation offered during the first Saturday in August and January every year. They also have direct contact information to the online*

*coordinator, administrative assistant, their faculty advisor, and student mentor. They feel supported and have all of the information they might need clearly laid out for them both in their acceptance letter and online.*

*At the required orientation they are introduced to the entire faculty, their fellow new students, faculty advisors and student mentors. A preliminary advising session takes place where they are introduced to the online plan of study and complete tentatively their course schedule for their first academic year online during orientation. They also leave campus with their student ID, email accounts, and an overview of the university and program they are now a part of.*

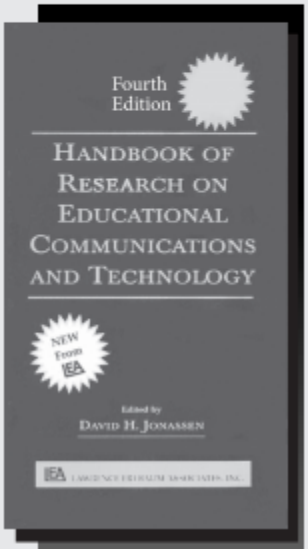
*In terms of registering for classes, a three year plan is clearly laid out on the Web, along with the different registration deadlines for new and continuing students each semester.*

*Courses are offered mostly through Blackboard and have two sections – an online section (available only for online students to register) and a face-to-face section for both Greensboro and Charlotte students.*

*Courses are capped at 15 students per section (no more than 30 students). The technology supporting both the online program and face-to-face blended environments will be state-of-the-art and include:*

- *Faculty members have wireless headsets and webcams for video conferencing and recordings of their lectures.*
- *Camtasia or Jing are used for screen recording "show me" videos.*
- *Skype group video conferencing is also available that can accommodate up to 10 simultaneous video feeds.*
- *Collaborate is used for large synchronous lectures so students can see and hear their professors and fellow classmates.*
- *Most online courses will also have a face-to-face component that is streamed and recorded live via Blackboard Collaborate.*
- *Faculty will also have weekly one hour Q&A sessions for online students seeking more synchronous interaction.*

# Read the Bottom Line.




## Handbook of Research on Educational Communications and Technology

Fourth Edition

Edited by

David H. Jonassen

University of Missouri-Columbia

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David Jonassen is Distinguished Professor of Education at the University of Missouri where he teaches in the areas of Learning Technologies and Educational Psychology, He has published 23 books and numerous artides, papers, and reports on text design, task analysis, instructional design, computer-based learning, hypermedia, constructivist learning, cognitive tools, and technology in learning.

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